

MONSANTO INDUSTRIAL CHEMICALS COMPANY
Seattle Plant
Seattle, Washington

Contingency

Spill Prevention Control and Countermeasure Plan

Part 265: Operations of Hazardous Waste Storage Facility

I. Purpose

The purpose of this plan is to describe the methods, equipment, and facilities used by the Seattle Plant, Monsanto Industrial Chemicals Company, to minimize hazards to human health or environmental from any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil or surface water.

II. Policy

It is the policy of the Seattle Plant of Monsanto Industrial Chemicals Company to discharge to the environment, either directly or indirectly, only those materials whose discharge is permitted by Federal, State and Local laws and regulations. Provisions of this contingency plan will be carried out immediately whenever there is a release of hazardous waste or hazardous waste constituents which could threaten human health or the environment.

III. Definitions

A. Plant

The Monsanto Industrial Chemical Company Plant is located at 9229 East Marginal Way South, Seattle, Washington. Phone (206) 764-4450.

B. Spill

An unplanned sudden or non-sudden release of a hazardous waste or constituents of a hazardous waste to the air, soil, or surface water at the facility.

C. Superfund Spill

A sudden, accidental, or episodic release of a reportable quantity (RQ) of hazardous substance to the soil or surface water of the facility.

<u>Hazardous Substance</u>	<u>Reportable Quantity (lb)</u>
Copper Sulfate	10
Sodium Hydrosulfide	5,000
Sodium Hydroxide	1,000
Sulfuric Acid	1,000
Sodium Bisulfite	5,000
Toluene	1,000
Methylene Chloride	1

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III. Definitions (cont.)

D. Hazardous Waste

A hazardous waste is defined as material having a pH above 12 or below 2. For purposes of this plan only strainer solids and a spill of one of our products, Vanillin Black Liquor Solids (VBLS), fall under this definition.

E. Containment

Containment means the surrounding of spilled material by a barrier which prevents its escape to the air, soil or ground water at the site. Such barriers might be a leachate collection system, tank farm dike wall, or a berm of earth pushed up around spilled material.

IV. Preventative Facilities

The plant has installed a concrete containment pad, with retaining wall and leachate collection system. Facility is indicated at point 5 on appendix 6. All plant hazardous waste is stored at this facility while awaiting transfer to an approved landfill. Leachate is returned to the plant process on an as needed basis using an automatic pumping system.

V. TSD Repair Plan

The TSD storage facility is constructed of 1 foot of 5000 lb reinforced concrete. It has been designed to withstand vehicle traffic and maintain its integrity during zone 3 intensity earthquake.

The facility should be surveyed by on-site observation once per month. ✓

VI. Action Plan

The Plant's hazardous waste is in a solid form. There is little chance of unplanned release. The plant's contingency plan addresses the leachate and/or mud resulting from the storage of these solids.

The leachate and/or mud is normally contained within the collection system provided. The level is checked by a float switch and pumped automatically to the plant process as necessary.

In the event that the capacity of the collection system pump and storage pad is exceeded and a spill occurs, the following action is to be taken:

A. By Discoverer

Immediately notify Chief Operator.

B. By Chief Operator

Dispatch discoverer and helper to the site with equipment to pump the leachate and/or mud to the plant process through the sewer pump out station located by the northwest of the D.C.

Dispatch two or more people with shovels to put a temporary berm around the spill.

Notify emergency coordinator as listed in Part VII.

360(a)(ii)
360(d)(i)
360(d)(ii)

C. By Emergency Coordinator

Notification of appropriate agencies and Plant Manager, should the spill reach the Duwamish River or qualify as a Superfund spill.

A prioritized list of agency phone numbers may be found in Appendix 3.

VII. Emergency Coordinator

The following is a list of people qualified to act as Emergency Coordinator in case of a hazardous waste release. The Environmental Supervisor is the primary emergency coordinator, others are listed in the order in which they will assume responsibility as alternates:

1. Environmental Supervisor - G. L. Podrabsky	work: 764-4465
	home: (b) (6)
2. TSD Superintendent - M. N. Miller	work: 764-4481
	home: (b) (6)
3. Operations Superintendent - B. E. Pallante	work: 764-4472
	home: (b) (6)
4. Production Engineer - D. K. Little	work: 764-4473
	home: (b) (6)
5. Assistant Production Supervisor - F. H. Emme	work: 764-4453
	home: (b) (6)
6. Assistant Production Supervisor - T. B. Rahier	work: 764-4478
	home: (b) (6)
7. Senior Chemist, Environmental and Industrial Hygienist - S. E. Hays	work: 764-4474
	home: (b) (6)
8. Plant Manager - D. P. Alt	work: 764-4484
	home: (b) (6)

VIII. Emergency Equipment

2" Warren-Rupp "Sandpiper" air operated diaphragm pump. All stainless steel with Viton diaphragms. Maximum air pressure 125 psi. Maximum capacity 200 gallons per minute (located in Maintenance Shop).

500 gallon portable stainless steel tank with dip pipe and flame arrester (can be pulled by either forklift).

Miscellaneous shovels, sandbags, etc. (located in Maintenance Shop).

IX. Revisions

Revision 1	June 28, 1985
Revision 2	September 11, 1985

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APPENDIX 3
GOVERNMENTAL AUTHORITIES NOTIFICATION LIST

<u>Agency</u>	<u>Days</u>	<u>Phone</u> <u>Night/Weekends</u>
Washington State Department of Ecology		
Mike Dawda	885-1900	
Bob McCormick - Regional Manager		(b) (6)
Metro (Industrial Waste Section)	447-6743	622-1628
Metro (West Point Treatment Plant)	447-6803 (24 hours)	
National Response Center	800-424-8802 (24 hours)	
(spills to Duwamish River and hazardous recordable quantity spills only)		
U.S. Coast Guard	442-7070	442-7070
King County Fire District #1.....	(Business) 762-3330	762-3330
	(Emergency) 911	911
Environmental Protection Agency.....	442-1263	442-1200
U.S. Army Corps of Engineers	764-3690	764-1628
King County Office of Emergency Service -		
Emergency Only.....	911	911
King County Sheriff - Emergency Number.....	911	

APPENDIX 4

ORGANIZATIONS CAPABLE OF EMERGENCY ASSISTANCE

<u>ORGANIZATION</u>	<u>PHONE</u>	<u>CAPABILITIES</u>
Crosby & Overton 3406 - 13th S.W. Seattle, WA.	622-3400	Oil spill clean-up, sludge removal, tank trucking.
Foss Launch & Tug Co. 660 West Ewing Seattle, WA.	281-3800 *281-3810	Log booming equipment; barges available to provide temporary floating storage.
Chem Security P.O. Box 1866 Bellevue, WA.	872-0711	Disposal service for waste materials via Arlington, OR.
Pioneer Towing Co. 6423 N.E. 175th Kenmore, WA.	525-3030	Log booming equipment.
Crowley Environmental Svcs. 3400 E. Marginal Way So. Seattle, WA.	682-4898	Emergency pollution control for spill clean-up on land or water.
Northwest Tank Service 1500 Airport Way So. Seattle, WA.	622-1090	Oil spill clean-up, sludge removal, tank trucking.
Chemical Processors Inc. 5501 Airport Way So. Seattle, WA.	767-0350	Chemical waste recyclers

* After hours numbers, for emergency use only.

APPENDIX 5

EQUIPMENT AVAILABILITY LIST

<u>COMPANY</u>	<u>PHONE</u>	<u>EQUIPMENT</u>
Hertz Equip. Rental & Leasing 10710 E. Marginal Way South Seattle, WA.	(206)762-1863	Pumps, compressors, generators, trucks, loaders, backhoes, etc.
Star Rentals 1919 - 4th Ave. So. Seattle, WA.	(206)622-7880	Pumps, compressors, generators, etc.
Case Power & Equip. Co. 5701 - 1st Avenue So. Seattle, WA.	(206)762-7110	Bulldozers, backhoes, loaders, earth moving equipment, etc.
Inland Transportation Co. 6737 Corson St. Seattle, WA.	(206)767-3605	Tank trucks, flat beds.
Secured Resource Transport 12486 S.E. 93rd Clackmas, OR	(503)653-5222	Flat bed, dump trucks.
N.C. Machinery Co. 17025 W. Valley Highway Seattle, WA.	(206)251-5800	Bulldozers, backhoes, loaders, earth moving equipment, etc.

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lists distributed to (a) all plant telephones and (b) each holder of an Emergency Plan Procedure Manual.

G. Production, D.C. and Maintenance Foremen

1. Know their duties during an emergency.
2. Educate all personnel on plan and departmental procedures.

H. Every Employee

1. Have a general knowledge of the entire plan.
2. Know what actions to be taken for area/equipment under his/her responsibility.

V. In-Plant Emergency Alarms and Communications

A. In-Plant Emergency Alarm

The plant emergency alarm system is designed to signal a major plant emergency or evacuation. It is an ascending low to high whoop which automatically repeats itself. It is broadcast over the plant breathing air loudspeakers and horns. The system also has built-in paging capability to transmit voice instructions. The following procedure will activate the in-plant emergency alarm. The alarm should be activated anytime an emergency situation as defined herein is encountered.

1. Use any plant phone and dial 4492.
2. Wait for the two second tone to stop. Then dial any of the following codes to activate or silence the system:
 - 1231 To activate paging
 - 1232 To silence paging
 - 1233 To sound the alarm ✓
 - 1234 To silence the alarm

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3. Whenever you are using the paging system, announce your message slowly and clearly. Include the nature of the incident, exact location, any known injuries and any special equipment needed.
4. The system can be deactivated by dialing one of the above codes or by hanging up. If you hang up, the system will shut itself down in 3 minutes.

B. Emergency Radio Communications

The plant has three handheld walkie-talkies and a base station for emergency communications found in the locations below. The units work on a radio frequency of 35.02 MHz. The other plant radios will not send or receive on the emergency frequency.

Base Station — Maintenance Foreman's Office

Mobile Unit — Plant Manager's Office

Mobile Unit — Chief's Office

Mobile Unit — Maintenance Superintendent's Office

VI. PROCEDURES

A. Action to be Taken by Person Discovering the Emergency

The person discovering the emergency situation should do the following in order:

- 360(a)(i) 1. Immediately activate the plant emergency alarm. ✓
- 360(a)(ii) 2. Activate the ADT fire alarm if appropriate, which will bring the Fire Department and Aid Car to the plant.
- 360(d)(i) 3. Notify other personnel in the area of the emergency.

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4. Stay near the area to assist with the emergency or direct emergency personnel until relieved.

B. Follow-up Action to be Taken on Day Shift Emergencies

All other personnel not in the area of the emergency should respond as follows once the emergency alarm is sounded.

1. Chief operator

- a. Immediately contact the Plant Manager and Operations Superintendent regarding the emergency. This can be done personally or by directing someone to do so.
- b. Direct emergency efforts until supervision arrives, then report to chief's office to collect headcount data.

2. Plant Manager/TSD Superintendent

- a. Report to the Emergency Control Center and assume role of Emergency Coordinator.
- b. Activate plant emergency radio to establish communication with emergency scene.
- c. Direct the activities of plant personnel in controlling the emergency.
- d. Issue appropriate press communications. (PLANT MANAGER only)

3. Operations Superintendent

- a. Report to the scene of the emergency as soon as notified and direct the activities associated with controlling the situation.
- b. Notify adjacent operating areas of the need to shutdown equipment.
- c. Make decision to evacuate area if required.

4. Fire Chief

- a. Report to the scene of the emergency (with an emergency radio) as soon as notified.
- b. Immediately set up communication with the Emergency Coordinator located in the Control Center.
- c. Direct the activity of any off site emergency personnel, such as Fire Department.
- d. Keep Emergency Coordinator advised of the situation: degree of seriousness, rescue needs, vapor emissions, primary and secondary explosion hazards.

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5. Personnel Superintendent

- a. Contact Control Center to receive instructions.
- b. Maintain communication with WHQ personnel.
- c. Determine need and arrange for:
 - 1) Supplies needed to assist in the emergency.
 - 2) Transportation of victims and workers.
 - 3) Medical facilities for care of injured.
- d. Coordinate headcount reporting for the site.

6. Accounting Superintendent

- a. Report to Emergency Control Center to receive instructions.
- b. Advise neighboring industries of the situation. See appendix IV for the list of companies and phone numbers.
- c. Direct the plant buyer to man the front gate to direct emergency vehicles and prevent unauthorized entry.
- d. Arrange to have all non-Monsanto personnel escorted off the plant site, if appropriate. Cross reference visitor names with the visitor log to account for all non-Monsanto personnel.
- e. Notify King County Sheriff of the emergency and request that access routes be kept clear.

7. Foremen

- a. Assist in emergency efforts if the emergency is in own department or
- b. If not directly involved, report to the chief operator's office and monitor the emergency radio.
- c. Begin performing headcounting function.

8. Employees in immediate area of emergency

- a. Render assistance in controlling the situation unless otherwise directed.

9. Employees not in immediate area

- a. Mechanics and shippers report to their respective foremen's office for headcount purposes and wait for instructions.
- b. Operators report to the chief operator's office for headcount purposes. Then, proceed back to your work area to monitor equipment until told otherwise.
- c. If travel to any of the above mentioned offices is not feasible, report into the Emergency Control Center for headcount purposes, then either proceed to your work area or to the scene of the emergency as directed.

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- d. Monitor equipment and stand by.
- e. Shutdown equipment and evacuate to parking lot when so advised.
- f. Lab, Engineering and Office personnel are to remain in their areas if unaffected or evacuate to the parking lot if so advised. Headcount should be taken by the lab supervisor and reported to the Emergency Control Center.

C. Follow-up Action to be Taken on Off-Shift Emergencies

1. Chief Operator

- a. Proceed to the scene of the emergency and assume the responsibility of the emergency coordinator until salaried supervision arrives.
- b. Gather as much information as possible on the extent of the emergency including: location, headcount, injuries, equipment damage and potential problems.
- c. Direct the inside 300/400 operator to telephone the Fire Department first. Then notify members of salaried supervision beginning with the Operations Superintendent and Plant Manager.
- d. Direct the autoclave operator to check-in with the 300/400 control room and then man the front gate to direct emergency traffic and prevent unauthorized entry. NO STATEMENTS ARE TO BE MADE TO ANYONE OUTSIDE OF THE GATES (PRESS, BYSTANDERS, ETC.) BY THE GATE WATCH.
- e. Assist with the direction of Fire Department personnel including warning them of any exposure hazards.

2. Other Employees on site at the time

- a. 200 operator - secure equipment, check in with the 300/400 control room operator and man the front gate.
- b. Inside 300/400 area operator - call salaried supervision when directed by chief, record headcount and monitor the equipment from the control room until told to do otherwise.
- c. All other employees on site at the time should report to the control room for headcount and then proceed to the scene of the emergency.

VII. EVACUATION PROCEDURES

- A. In the event that an evacuation is ordered all equipment should be shut-down in as orderly a fashion as possible. Appendix II provides an equipment checklist to be followed.

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- B. The assembly area for the plant is the Southwest corner of the parking lot. One person should write down the names of all assembled and give to the Personnel Superintendent for an accounting of plant personnel.
- C. Appendix VII details evacuation routes to be taken from all operating areas.

VIII. EMERGENCY MEDICAL AID

A. Facilities

- 1. The laboratory will be the primary on-site location for treating injured personnel. Adequate emergency medical supplies are stocked in the laboratory at the sample drop off door.
- 2. The Chief's Office is stocked with additional first aid supplies to be used at the emergency site.

B. Medical Responsibilities

Any qualified first aid helpers should first report to their respective foreman or chief's office for headcount purposes. The fire chief will radio instructions about where to report.

IX. AIDING AN INJURED EMPLOYEE

The following procedure should be followed whenever an employee is found injured.

- A. The person discovering the injured should immediately ascertain whether the employee is breathing. If not, begin administering CPR and continue until help arrives. If the employee is conscious administer appropriate

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first aid and call for help or activate the emergency alarm. If the employee can respond to questions, try to ascertain the extent of the injuries, the degree of mobility and how the accident occurred.

- B. If the employee cannot or should not be moved, reassure the employee that you will return and then immediately get help. For injured employees at an elevated level who cannot or should not be moved, call the Fire Department. Indicate to the fire department dispatcher the nature of the emergency, the location of the plant site and the location of the injured, such as on a roof top, tank top, pipe rack, operating level above ground. Be specific so they can decide on the emergency equipment needed.
- C. Return to the injured, continue first aid and stay with the employee until the Fire Department arrives.

X. ACTION TO BE TAKEN IN THE EVENT OF AN EARTHQUAKE

If the plant were to experience a severe earthquake, one strong enough to damage equipment or buildings, emergency action should be taken in accordance with Sections VI and VII. For less severe quakes, all plant employees should follow the guidelines outlined below:

- A. Check plant personnel for injuries and provide medical assistance if required.
- B. Notify the plant manager and Operations Superintendent if the quake occurs outside of day shift working hours.

2) - (WAC 173-303-320 (2))

GENERAL INSPECTION

This section deals with requirements for a written schedule to inspect all monitoring equipment, safety and emergency equipment, security devices, and operating and structural equipment that help prevent, detect, or respond to hazards to the public health or the environment. Copies of: (1) the "Facility, Container, and Emergency and Safety Equipment Inspection Schedule"; and (2) the "Weekly RCRA Facility/Container/Emergency Equipment Inspection Report" are attached for reference.

(a) The schedule is kept at the facility. Monsanto believes it is in full compliance with this subparagraph.

(b) The schedule identifies the following types of problems which are to be looked for during inspections:

DAILY:

- Erosion or signs of leakage or spills.
- Drainage/liquid collection system malfunctions.
- Level of waste in facility.
- Location of waste in facility.

WEEKLY: (in addition to daily items)

- Condition of containers.
- Condition of materials of construction to detect cracking, erosion, or leakage.
- Emergency equipment presence and condition.

Monsanto believes it is in full compliance with this subparagraph.

(c) The schedule does indicate frequencies for all inspection items. The frequencies are based on rate of deterioration expected and the probability and severity of an environmental or human health incident, as well as statutory requirements pertaining to the particular type of storage facility.

Monsanto believes it is in full compliance with this subparagraph.

(d) An inspection record is completed during each daily and weekly inspection. Copies are retained for at least three years. Examples of historical inspection records have been furnished to the Department previously. An example copy of the weekly forms presently used is attached. An example copy of the daily forms presently used has been furnished to the Department previously.

Monsanto believes it is presently in full compliance with this subparagraph.

FACILITY, CONTAINER, AND EMERGENCY AND SAFETY EQUIPMENT INSPECTION SCHEDULE

The TSD facility, as well as containers stored there and safety and emergency equipment, are inspected regularly according to the checklists which follow. Inspection frequencies were determined based on specific requirements in the regulations, rate of possible deterioration of equipment, and probability of an environmental or human health incident.

Daily inspections are conducted by the Chief Operators and weekly ones by the Environmental Superintendent or a person designated by him. The inspection results are recorded on printed forms and include date and time of inspection, printed name and handwritten signature of inspector, notation of observations made, and date and nature of any repairs or remedial action. Examples of forms follow.

Problems noted during the inspections are remedied on a schedule which prevents hazards to public health or to the environment. In cases where a hazard is imminent or has already occurred, remedial action is taken immediately. This need for action is communicated to all employees. In cases where advice is needed, the Environmental Superintendent provides consultation. Inspection reports are retained in the RCRA files in the laboratory building for three years.

No specialized safety equipment is required for managing the TSD facility. Plantwide safety equipment such as fire extinguishers, emergency lighting, safety showers, eye wash baths, emergency alarms, and emergency respiratory protective equipment are inspected monthly by all plant employees on a rotating basis. Inspection reports are kept in the Safety Supervisor's office when completed.

Inspection Checklists

Daily

1. Check surrounding ground for erosion or signs of leakage or spills.
2. Check drainage system to ensure good working order.
3. Check level of waste to ensure that it is no more than two feet from top of wall and that the strainer solids constitute no more than 4500 gallons. (Ten feet from back wall.)
4. Check to see that material is stored in proper location.

Weekly

All daily items, plus:

1. Check containers for signs of leakage, damage, and for deterioration caused by corrosion or other factors.

2. Check storage facility construction materials to detect cracking, eroding, or leakage of any kind.

Emergency Equipment

Check to make sure that the following equipment is present in quantity listed, is stored in proper location, and is in good working condition.

- () Drum overpacks (2). Stored in meal bins.
- () Empty open top metal drums, 17C or E (6). Stored in meal bins.
- () Drum transfer pumps, hand operated (2). Stored in shop and 300 area.
- () Air operated diaphragm pumps; 1,2, and 3-inch sandpiper (4). Stored in shop.
- () Sump pump spare parts. Stored in shop.
- () Oil absorbing sheets (50-100). Stored in D.C. warehouse.
- () Sandbags (20). Stored in D.C. warehouse.
- () Shovels (5). Stored at RCRA facility and in shop.
- () Tank, portable, stainless steel, with wheels, dip pipe, and flame arrester.

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WEEKLY RCRA FACILITY/CONTAINER/EMERGENCY EQUIPMENT INSPECTION REPORT

Facility and Containers

1. Is there erosion or signs of leakage or spills on surrounding ground? Yes/No
2. Is drainage system working? Yes/No
3. Is material lower than 2 feet from top of wall and is volume of strainer solids less than 4500 gallons (10 feet from back wall)? Yes/No
4. Are materials stored in proper sections as indicated by signs? Yes/No
5. Do structural components of facility show cracking, eroding, or leakage of any kind? Yes/No
6. Do any containers show signs of leakage, damage, or deterioration caused by corrosion or other factors? Yes/No

Emergency Equipment

Check to make sure that the following equipment is present in quantity listed, is stored in proper location, and is in good working condition. A check (✓) indicates that no problem was found.

- () Drum overpacks (2). Stored in meal bins.
- () Empty open top metal drums, 17C or E (6). Stored in meal bins.
- () Drum transfer pumps, hand operated (2). Stored in shop and 300 area.
- () Air operated diaphragm pumps; 1,2, and 3-inch Sandpiper (4). Stored in shop.
- () Sump pump spare parts. Stored in shop.
- () Oil absorbing sheets (50-100). Stored in D.C. warehouse.
- () Sandbags (20). Stored in D.C. warehouse.
- () Shovels (5). Stored at RCRA facility and in shop.
- () Tank, portable, stainless steel, with wheels, dip pipe, and flame arrester.

Printed Name: _____

Signature: _____

Date: _____

Time: _____

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Comments/Action (Must be filled in if any problem is noted above. Dates must be included for remedial actions taken.)

Instructions: The inspection is to be conducted weekly by the Environmental Superintendent or by a person appointed by him. Thoroughly investigate each item and note on this form any deficiencies and remedial actions taken. Problems which could result in a health or environmental hazard should be remedied immediately.

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rcrafrm2

1. Is there erosion or signs of leakage or spills on surrounding ground? Yes/No
2. Is drainage system working? Yes/No
3. Is material lower than 2 feet from top of wall and is volume of strainer solids less than 4500 gallons (10 feet from back wall)? Yes/No
4. Are materials stored in proper sections as indicated by signs? Yes/No

Time: _____

Instructions: The inspection is to be conducted daily by the Chief Operator. Thoroughly investigate each item and note on this form any deficiencies and remedial actions taken. Problems which could result in a health or environmental hazard; e.g., contamination of ground, should be remedied immediately. If advice is needed, contact Gary Podrabsky or Sue Hays. Make note on this form of action taken and date.

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DATE 08-11-2010 BY 60322
EXEMPTED FROM A REPRESENTATION WARRANTY